10/519085

Amendments to the Claims:

Please cancel claims 1-17 as presented in the underlying International Application No. PCT/EP2003/006270.

Please add new claims 18-36 as indicated in the listing of claims below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-17 (cancelled)

Claim 18 (new): A system for generating information about data objects, wherein each data object represents one of a component of a technical product and a step in a product formation process, the system comprising:

a device configured to generate data object types for the data objects;

a device configured to generate automatically analyzable specifications, wherein an analysis of the specification determines a first set of type-coded data objects as a function of a second set of type-coded data objects;

a device configured to generate relation types between the data objects;

a device configured to assign the data object types to each of the relation types; and

a device configured to assign the automatically analyzable specifications to the relation types.

Claim 19 (new): The system as recited in claim 18, wherein the determining of the first set of type-coded data includes one of generating and modifying.

Claim 20 (new): The system as recited in claim 18, further comprising:

a device configured to generate categories of the relation types;

a device configured to generate a taxonomy of the categories, and wherein the device configured to generate the relation types generates a respective category belonging to the relation

type with the relation type.

Claim 21 (new): The system as recited in Claim 20, further comprising:

a first information memory having a first expandable cross-applications library configured to store the data object types and the relation types;

a second information memory having a second expandable cross-applications library configured to store the relation type categories; and

a device configured to generate a sub-relation type category as a subcategory of one the relation type categories in the second standard library.

Claim 22 (new): The system as recited in Claim 20, further comprising:

a first data memory configured to store the relation type categories;

a second data memory configured to store the data object types and the relation types; and

a third data memory configured to store type coded relations.

Claim 23 (new): The system as recited claim 22, further comprising a relational database for the first, second and third data memories including a plurality of data records, wherein each data record includes a cell for an unambiguous identifier and at least one cell structured in XML data format for one of a relation type category, a data object type, a relation type and a relation.

Claim 24 (new): The system as recited claim 18, further comprising a device configured to assign one of the relation types to another of the relation types.

Claim 25 (new): The system as recited claim 18, further comprising a device configured to generate a specified relation of a specified relation type.

Claim 26 (new): A system for generating information about data objects, wherein each data object represents a step in a product formation process having a first phase and a second phase, the system comprising:

a device configured to generate data object types for the data objects;

a device configured to generate automatically analyzable specifications, wherein an analysis of the specification determines a first set of type-coded data objects as a function of a second set of type-coded data objects;

a device configured to assign one of the data object types to at least one of the first and second phases;

a device configured to generate a single taxonomy for data object types assigned to the first phase and for data object types assigned to the second phase.

Claim 27 (new): The system as recited in claim 26, wherein the device configured to assign data object types permits an assignment of at least two of the following object types to a relation type:
- tapes of design features,
- types of components,
- types of assemblies,
- types of manufacturing features,
- types of quality features,
- types of measurement features,
- types of test features,
- types of materials,
- types of manufacturing equipment,
- types of production facilities, and
- types of commentaries.

Claim 28 (new): The system as recited in claim 18, wherein further comprising an information routing interface to a data processing system for generating and processing a model of one of the following:

a product or part of the product,

a manufacturing process for manufacturing the product or a part of the manufacturing process,

a work flow or part of a work flow, and

a cost of manufacturing the product.

Claim 29 (new): The system as recited in claim 28, wherein the information routing interface is configured to transmit the type and an identifier of the data object to be generated by the data processing system.

Claim 30 (new): The system as recited in claim 29, wherein the information routing interface is configured to transmit a method and an attribute values corresponding to the data object.

Claim 31 (new): The method as recited in claim 29, further comprising a device for generating a user profile of a user including at least one definition, wherein the information routing interface is configured to transmit the at least one definition, and wherein at least one definition includes at least one of the following:

- a read and write authorization for the user,
- a capability of the user in generating and processing data objects, and
- a user preferences in generating and processing data objects.

Claim 32 (new): An information model for data objects, wherein each data object represents a step in a product formation process having at least a first phase and a second phase, the information model comprising:

data object types of the data objects;

relation types of relations among the data objects;

an automatically analyzable specification, wherein an analysis of the specification determines a first set of type-coded data objects as a function of a second set of type-coded data objects, and wherein the automatically analyzable specification is assignable to a relation type and wherein, at least one of the following is assigned to a relation type:

at least two data object types;

at least one data object type and at least one other relation type; and

at least two other relation types.

Claim 33 (new): The information model as recited in 32, further comprising categories of relation types and a taxonomy of relation type categories, wherein a relation type is assignable to a relation type category.

Claim 34 (new): The information model as recited in 32, wherein one of a membership interval and a role is assigned to at least one relation type, wherein the membership interval or role corresponds to a link between one of the data objects and the relations to the relation type.

Claim 35 (new): The information model as recited in 32, further comprising phase data objects, each representing one of the at least fist and second phases of the formation process, wherein one of the phase data objects is assignable to one of the data object types.

Claim 36 (new): The information model as recited in 32, further comprising a data model for permanent storage of at least one of the data object types and the relation types structured according to the information model.